

REMARKS/ARGUMENTS

Upon entry of the above amendment, claims 10, 11, 15, and 16 will have been amended and submitted for consideration by the Examiner. Claims 12, 13, and 14 remain pending for consideration by the Examiner. In view of the above, Applicants respectfully request reconsideration of the outstanding rejections of all the claims pending in the present application. Such action is respectfully requested and is now believed to be appropriate and proper.

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided, and for the acceptance of the drawings filed in the present application on July 25, 2000.

Further, Applicants wish to make of record a telephone interview conducted between Applicants undersigned representative and Examiner Thompson, who is in charge of the present application. The Examiner is respectfully thanked for his cooperation, preparation and assistance in scheduling and conducting the above-noted interview. The Examiner is further thanked for utilizing his knowledge of the subject matter of the present invention to assist Applicants undersigned representative in clarifying the outstanding issues, resolving the 35 U.S.C. § 112 problem set forth in the outstanding Official Action and generally advancing the prosecution of the present application towards allowance. A record of the above-noted interview will be set forth hereinbelow.

Turning to the merits of the action, the Examiner has rejected claims 10-16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. By the present amendment, Applicants have clarified the claims, in compliance with the Examiner's requirements. Thus, Applicants respectfully request that the Examiner withdraw this rejection.

With respect to the § 112 issue discussed in paragraph 10, Applicants have changed the terminology to read ---or--- so as to clarify what is meant by this term.

Regarding the issue raised in paragraph 11a, Applicants have amended the claims to give particular names to each of the various devices mentioned in the claims describing the present invention. Further, the interrelationship between these various devices will be set forth hereinbelow. In this regard, the additional apparatus has now been defined as a ---predetermined communication apparatus---. Further, the analyzing apparatus is now being defined as ---a LAN monitoring analyzing apparatus--- and is distinct from the predetermined communication apparatus. In terms of the example illustrated in Fig. 1, the predetermined communication apparatus refers to, e.g., the router 5 while the LAN monitoring analyzing apparatus refers to, e.g., the PC 4.

Regarding paragraph 11b, Applicants have clarified the recitations of the claims to refer, at the appropriate portions, to the ---ECHO request--- and to the ---ECHO reply---.

Regarding the issue raised in paragraph 12, Applicants have amended the claims so as not to refer to forwarding of packets.

Accordingly, it is respectfully submitted that by Applicants amendments, each of the issues raised in the Examiner's rejections under 35 U.S.C. § 112, second paragraph, have been addressed and eliminated. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested in due course.

The Examiner also has rejected claims 10-16 under 35 U.S.C. § 103(a) as being unpatentable over CONTA et al. ("Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (Ipv6) Specification", Request for Comments (RFC) 2463, December 1998) in view of BULLARD et al. (U.S Patent No. 6,405,251).

As noted above, Applicants have resubmitted claims 10-16. Applicants respectfully traverse the above rejection based on resubmitted claims 10-16 and will discuss said rejection with respect to the pending claims in the present application as will be set forth hereinbelow.

Applicants note that the features of the present invention deal with the use of the "Echo request" and "Echo reply" packet. As claimed in, e.g., claim 10, four apparatuses relate to each other. In particular, a first device (an error informing apparatus included in, e.g., an Internet facsimile apparatus, such as e.g. the IFAX 1 in Fig. 1), a second device (e.g., the mail server 3 in Fig.1), a third apparatus (a predetermined communication apparatus, such as, e.g., the router 5 in Fig. 1), and a fourth apparatus (e.g., an analyzing apparatus, such as e.g., PC 4 in Fig.1).

The first device (e.g., the IFAX 1 in Fig. 1) does not have an ability to analyze an “Echo reply” packet. The “Echo reply” packet is sent in response to an “Echo request” packet. The first device (e.g., the IFAX 1 in Fig. 1) transmits a command for an Internet transmission to the mail server (e.g., the mail server 3 in Fig.1). The first device (e.g., the IFAX 1 in Fig. 1) detects whether a response to the command is received from the mail server (e.g., the mail server 3 in Fig.1). The first device (e.g., the IFAX 1 in Fig. 1) generates an IP packet including an error message when the response to the command is not received for a predetermined time or when the response to the command is incorrect. The first device (e.g., the IFAX 1 in Fig. 1) transmits the IP packet including the error message to the third apparatus (e.g., the router 5 in Fig. 1) which receives the IP packet and which is connected to the first device (e.g., the IFAX 1 in Fig. 1) via the LAN.

The IP packet is the “Echo request” packet in response to which the third apparatus (e.g., the router 5 in Fig. 1) transmits the “Echo reply” packet back to the first device (e.g., the IFAX 1 in Fig. 1). The first device (e.g., the IFAX 1 in Fig. 1) receives the “Echo reply” packet from the third apparatus (e.g., the router 5 in Fig. 1). Then, the “Echo reply” packet is captured and analyzed by the fourth apparatus (e.g., PC 4 in Fig.1) which is connected to the first device (e.g., the IFAX 1 in Fig. 1) via the LAN and which monitors the LAN. Claim 16 recites a related method.

On the other hand, CONTA et al. specifies a set of Internet Control Message Protocol (ICMP) messages for use with version 6 of the Internet Protocol (Ipv6). In

other words, CONTA et al. define and explain the ICMPv6 standard. For example, CONTA et al. describe the message format for ICMP (§ 2.1, page 3), the time exceeded message and the parameter problem message among ICMP error messages (§ 3.3, page 9, § 3.4, page 10). CONTA et al. also describes the Echo request message and the Echo reply message among ICMP informational messages (§ 4.1, § 4.2, pages 11-13).

However, the ICMP standard itself does not disclose or render obvious the features of the present invention, although the present invention utilizes the ICMP standard.

As explained above, the features of the invention includes the following. The first device (e.g., the IFAX 1 in Fig. 1) generates an IP packet including an error message when the response to the command is not received for a predetermined time or when the response to the command is incorrect. The first device (e.g., the IFAX 1 in Fig. 1) transmits the “Echo request” packet to the third apparatus (e.g., the router 5 in Fig. 1). The first device (e.g., the IFAX 1 in Fig. 1) receives the “Echo reply” packet from the third apparatus (e.g., the router 5 in Fig. 1), which it cannot utilize (or analyze). Then, the fourth apparatus, which monitors the LAN (e.g., PC 4 in Fig. 1) captures and analyzes the “Echo reply” packet. In other words, to have the fourth apparatus (e.g., PC 4 in Fig. 1) analyze the “Echo reply”, the first device (e.g., the IFAX 1 in Fig. 1) transmits the “Echo request” packet to the third apparatus (e.g., the

router 5 in Fig. 1) and the third apparatus (e.g., the router 5 in Fig. 1) transmits the “Echo reply” packet back to the first device (e.g., the IFAX 1 in Fig. 1).

Specifically, since the first device (e.g., the IFAX 1 in Fig. 1) does not have the ability to analyze the “Echo reply” packet, the first device (e.g., the IFAX 1 in Fig. 1) has the fourth apparatus (e.g., PC 4 in Fig. 1) analyze the “Echo reply”. To have the fourth apparatus (e.g., PC 4 in Fig. 1) analyze the “Echo reply”, the first device (e.g., the IFAX 1 in Fig. 1) transmits the “Echo request” packet. Although CONTA et al. specifies the standard of ICMP, CONTA et al. does not disclose at least the above explained features of the invention.

Therefore, it is respectfully submitted that the features recited in Applicants’ submitted claims 10-16 are not disclosed in CONTA et al. cited by the Examiner.

BULLARD et al. relates to a system which collects and aggregates data from network entities for a data consuming application. BULLARD et al. also provides explanations of ICMP, such as at columns 25 and 26 of BULLARD et al. However, BULLARD et al. does not teach a facsimile apparatus which does not have the ability to analyze the “Echo reply” packet. Thus, BULLARD et al. does not disclose the features of the present invention. That is, BULLARD et al. does not disclose or teach a fourth apparatus (e.g., PC 4 in Fig. 1) that analyzes the “Echo reply” packet, and a first device (e.g., the IFAX 1 in Fig. 1) that generates and transmits the “Echo request” packet. The devices between which the ICMP messages are transmitted can

analyze the same and thus BULLARD et al. relates to a different environment than the present invention and has no need to the present invention.

Therefore, it is respectfully submitted that the features recited in Applicants' submitted claims 10-16 are not disclosed in the combination of CONTA et al. and BULLARD et al. cited by the Examiner. The pending claims are submitted to be patentable over the Examiner's proposed combination, since neither CONTA et al. nor BULLARD et al. discloses the features recited in Applicants' claims.

As noted above, Applicants conducted a telephone interview with the Examiner in charge of the present application on May 7, 2004. In this regard, Applicants have received an Interview Summary Form from the Examiner dated May 10, 2004 and note the substance of the interview contained therein. In this regard, Applicants additionally note the following items of the Summary Form.

The Examiner indicated difficulty in understanding how the analyzing apparatus obtains information received by the error informing apparatus. In this regard, Applicants have amended the claim to clarify that the analyzing apparatus monitors the LAN and captures the echo reply packet directed to the error informing apparatus. The Examiner's attention is directed to, inter alia, page 14, lines 11-19.

Regarding the Examiner's indication that the distinction between the claimed IP packet and the reply packet being unclear, Applicants submit that the reply packet is transmitted, e.g., from the router back to the IFAX in response to the transmission of the echo request packet from the IFAX to the router.

In regard to the Examiner's indication that the reply request/reply packets are admitted prior art, Applicants note although they are per se admitted prior art, the utilization of these packets as recited in the claims of the present application is not part of the prior art and is in fact one of the basis for patentability of the claims in the present application.

Further, the Examiner's indication that "passing the reply packet to other processes was directly suggested", Applicants submit that it is deemed unobvious to transmit a packet to an apparatus that is incapable of utilizing the same. That, however, is what Applicants invention does. As noted previously, the IFAX 1 (using, for example, the illustration of Fig. 1) does not have the capability of analyzing the echo reply packets. Thus, Applicants invention utilizes the PC 4 to perform this function. The PC 4 monitors traffic on the LAN and captures the packet directed to the IFAX 1 and subsequently analyzes the same to determine the nature of the error in the transmission between the IFAX 1 and the server 3.

It is respectfully submitted that at least this feature in the claimed combination is not rendered obvious by the combination of references relied upon by the Examiner. Applicants further respectfully submit that the utilization of a packet being transmitted to a receiving device that cannot utilize such packet to perform a function that the receiving device cannot perform is not "minimal information forwarding/passing operation".



Regarding the Examiner's indication that the analyzing and the error informing apparatuses are not co-located, Applicants note that they are connected to the LAN and that the analyzing device monitors the traffic of packets on the LAN, captures the echo reply packet and analyzes the contents of the same.

Further, with regard to the discussion conducted during the above-noted interview, Applicants undersigned representative pointed out that the primary reference relied upon merely discloses the standard for ICMP transmissions. It does not, however, in any way teach the transmission of such a packet to the a device that cannot utilize the packet and the monitoring and capturing of such a packet by a device to which it is not addressed. The secondary reference relied upon by the Examiner is a PC system which has no need for the benefits of the present invention. As noted in Applicants specification, at the paragraph bridging pages 2 and 3 the IFAX does not have the capability to interpret or analyze the contents of the IC and P packet and does not have the storage capability for such analysis. However, the PCs that are utilized by the secondary reference to BULLARD et al. have such a capability and there is therefore no reason to utilize the combination of features of Applicants invention in a PC environment.

In the present invention, a transmission of an echo request and an echo reply between the IFAX 1 and the router 5 and between the router 5 and the IFAX 1 are utilized to determine the existence of an error in a transmission between the IFAX 1 and the mail server 3. Further, a fourth device such as PC 4, analyzes the nature of

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the error. It is respectfully submitted that these combinations of features as recited in Applicants claims are clearly unpatentable over the combination of features relied upon by the Examiner. Again, as noted during the interview, there is no logical or obvious reason for sending a message to a device that cannot utilize such message. Neither of the references relied upon teaches this feature.

Regarding the flow probe 12 of BULLARD et al., the secondary reference upon which the Examiner relies, Applicants note that it identifies transactions as unsuccessful and provides the billing application with information that the billing application can use in determining whether or not the user should be charged for that transaction. Accordingly, the probe of BULLARD et al. is monitoring the actual transmission that contains the error. In the present case, the transmission containing the error is between the IFAX 1 and the mail server 3. However, the PC 4 monitors transmissions between the IFAX 1 and the router 5. For this additional reason, it is submitted that the combination of references relied upon by the Examiner does not disclose the features of Applicants claims.

Applicants note with appreciation the Examiner's invitation to repeat the interview procedure and will do so in the near future.

For each of the above reasons and certainly for all of the above reasons, it is respectfully submitted that Applicants invention is clearly patentable over the references relied upon by the Examiner and an action to such effect is respectfully requested in due course.

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Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection and an indication of the allowability of all the claims pending in the present application, in due course.

SUMMARY AND CONCLUSION

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have made of record an interview conducted with the Examiner. Applicants have also amended the claims for consideration by the Examiner.


With respect to the amended claims, Applicants have pointed out the features thereof and have contrasted the features of the new claims with the disclosure of the references. Accordingly, Applicants have provided a clear evidentiary basis supporting the patentability of all claims in the present application and respectfully request an indication of the allowability of all the claims pending in the present application in due course.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

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Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Masao AKIMOTO et al.

  
Bruce H. Bernstein  
Reg. No. 29,027

July 12, 2004  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191